

J. Lederberg

APR 26 1971

CARNEGIE INSTITUTION OF WASHINGTON  
GENETICS RESEARCH UNIT  
COLD SPRING HARBOR, NEW YORK 11724

April 23, 1971

Dear Josh

Your 1962 definition of plasmid is usually interpreted to include the F agent. Some properties of F might suggest a sort of sex chromosome. Do you ever consider alternative definitions of plasmid? To exclude migratory chromosomes?

Or would you care to try?

Al  
Hershey

=====

H1 A1--

APR 28 1971

How do you define a chromosome? When I wrote that review, I had in mind a regular mechanism of segregation (e.g. mitosis) to define the chromosome. This does break down in the light of present knowledge of prokaryotes. F is a shadowy intermediate. Apart from its potentiality for integration (episome), you can choose to look at it as a chromosome or as a plasmid. We will face the same problem with mitochondrial DNA too. My main purpose in defining 'plasmid' was to stress the ambiguity of plasmidage/virus. I think I would still leave it at the original definition of "extrachromosomal <gene(s)>".